REMARKS

The Office Action and the cited and applied references have been carefully reviewed. No claim is allowed. Claims 2-7, 13-15, and 17-25 presently appear in this application and define patentable subject matter warranting their allowance. Reconsideration and allowance are hereby respectfully solicited.

Claim 15 has been rejected under 35 U.S.C. §112, second paragraph, because the examiner holds that the recitation of "the drug candidate molecule" lacks antecedent basis. This rejection is obviated by the amendment to claim 15.

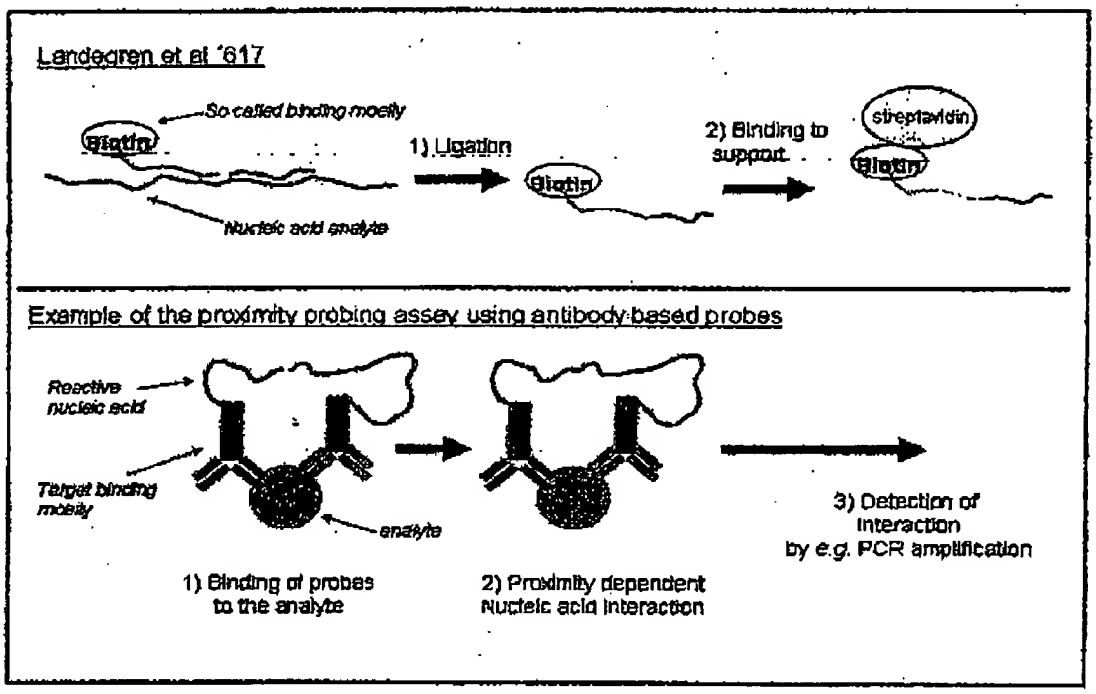
Claims 25, 3-5, 7, and 22-23 have been rejected under 35 U.S.C. §102(b) as being anticipated by Landegren et al., U.S. Patent 4,988,617. This rejection is respectfully traversed.

Landegren '617 discloses an invention where the binding moiety is used for detection of a ligation product (see column 2, lines 50-59) and is not involved in binding the analyte as positively recited in claim 25.

By contrast, in the presently claimed invention, the binding moiety binds to the target analyte, see page 2, lines 5-14, and is not involved in the analysis of the interaction

product. To further clarify, the difference between Landegren et al. '617 and the claimed invention is shown below in the schematic drawing.

The difference between proximity probing and Landegren '617



As shown in the schematic drawing above, the binding moiety (biotin) described to '617 does not bind the target analyte and is only used subsequent to the ligation reaction for binding to a solid support (streptavidin). In the presently claimed invention (the proximity probing assay), the target binding moieties (shown here as antibodies) bind the target analyte while the reactive nucleic acids interact on a

proximity dependent basis. This proximity dependent interaction is subsequently detected, for example, by PCR.

Furthermore, as recited in claim 25(b), the binding moiety binds to the one or more analytes by other than Watson-Crick base pairing. Accordingly, Landegren '617 cannot anticipate the presently claimed invention.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claims 2, 6, 13, 15, 18-21, and 24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Landegren et al. (U.S. Patent 4,988,617) in view of Landegren (WO 97/00446). The examiner holds that it would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made, to combine a method for detecting one or more analytes as taught by Landegren et al. ('617) with a method using enhanced signal by amplification and antibody binding moieties, to achieve expected advantage of developing an improved method for detecting a target analyte using immunological reactants because Landegren ('00446) taught that the invention enables detection of extremely low numbers of antigenic molecules, even down to a single molecule (see page 3, paragraph 1). It is the examiner's position that an ordinary practitioner would have been motivated to combine the method of Landegren et al.

PAGE 18/22 * RCVD AT 10/15/2004 2:16:33 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:202 737 3528 * DURATION (mm-ss):04-14

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('617) with the incorporation of amplified signal generating procedures as amplification and antibody binding as taught by Landegren (00446) for the expected benefit of increasing the detection signals of a target analyte. This rejection is respectfully traversed.

The disclosures and teachings of Landegren '617 are discussed immediately above in the §102(b) anticipation rejection. To restate, the binding moiety in Landegren '617 is only used for the isolation of the ligated product of two oligonucleotides and not for target binding. Landegren '617 does not use the biotin binding moiety to detect streptavidin, but simply as a means to fish out the ligation product. This is very different from using the binding moieties of the proximity probes to specifically bind the target analyte molecule as claimed in the present invention.

Regarding the secondary Landegren WO'446 reference relied upon by the examiner, this reference discloses a test kit comprising a first immobilized reagent having affinity for a specific macromolecule (i.e., a protein), and a second and third affinity reagent (i.e., antibodies) specific for different determinants of a specific macromolecule (see page 3, lines 13-18). Products from an amplification reaction only result when two antibodies, i.e., the second and third, have bound to the same antigen (see page 4, lines 9-11 and Fig. 1).

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The reaction occurs at a surface on which the first reagent is immobilized.

By contrast, in the present invention, two probes (i.e., antibodies), which are mobile in solution (not immobilized on a solid support) and being attached to reactive nucleic acids, bind to the target analyte. Accordingly, Landegren WO '446 does not satisfy the deficiencies noted for Landegren '617 and therefore cannot lead one of ordinary skill in the art to the presently claimed invention.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

In view of the above, the claims comply with 35 U.S.C. §112 and define patentable subject matter warranting their allowance. Favorable consideration and early allowance are earnestly urged.

Respectfully submitted,

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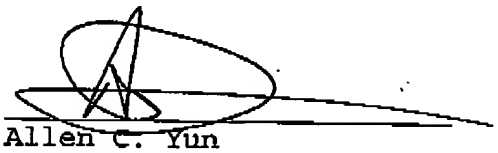
By 
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